March 6, 2017

ADDENDUM No. 2

The following changes and/or clarifications shall be incorporated into the contract documents:

1. See attached revised Bid Proposal Form, with the correct project t title, as well as a change in the Time for Completion, which has been extended to August 31, 2017.
   Note that the $500.00 per day liquidated damages is still applicable.
2. 6" rubber base shall be installed at the base of all interior walls, including the shop/storage space.
3. The concrete floor surfaces shall be steel trowel finish, and shall receive two coats of a water-based solvent free acrylic sealer. Basis of design: BASF Masterkure CC 200 WB, or equivalent.
4.

DRAWINGS:

CIVIL:

ELECTRICAL:

1. See revised Electrical drawing sheets E1.0, E1.1, E3.0, and E5.0, to reflect certain clarifications regarding communications.

SPECIFICATIONS:

1. See Section 092600 Gypsum Wallboard.
2. See Section 095110 Acoustical Panel Ceilings.
3. Section 085113 Windows: U-value for exterior windows can be changed to U=36.

APPROVED SUBSTITUTIONS:

REJECTED SUBSTITUTIONS:

Attachments:
Pre-Bid Attendee List.
Revised Bid Proposal Form.
Revised Electrical drawings.
Section 092600.
Section 095110.

END OF ADDENDUM No. 2

# STATE OF WASHINGTON MILITARY DEPARTMENT

**STORAGE BLDG -KENT READINESS CENTER**
State of Washington
Military Department

date: 3/1/17
location: 24410 Military Rd., Kent, WA 98032
10:00AM Pacific

| Attendee | Representing | Phone(s) | email |
|---|---|---|---|
| Trevor Wheezel | Teknon Electrical | 425-895-8535<br>Cell 206-450-3956 | TWheezel@Teknon.com |
| Darell Waterman | Hi Mark Construction | 253-377-4595 | dwh20man@msn.com |
| DARREL HEENE | LAKE TAPPS CONST. UNLTD | 253-863-6442 | darrel@laketappsconstruction. |
| Nathan Holkraft | Teknon Electrical | 206-948-9877 | nholkraft@teknon.com |
| MICHAEL MILTIMORE | GENERAL MECHANICAL | 253-606-0687 | MMILTIMORE@GENERALMECHAN |
| JIM CASTINO | CASTINO ARCHITECTURAL | 253-851-7648 | JIMCASTINOC COMCAST.NET |
| Kris Salerno<br>Jeff Allen | Osborne Construction | 206-255-4365 | kris.salerno@osborne.cc |
| ROB JEFFERSON<br>MARC PUDISTS | DAVID EVANS AND ASSOCIATES INC | C 253 720 7971<br>253 922 9780 | RTJ@DEAINC.COM<br>MAP@DEAINC.COM |
| Tom Frank | Westmark Const. Inc | 253-564-4620 | bids@westmarkconst.com |

| | | | |
|---|---|---|---|
| Darell Waterman | Hi Mark Construction | 253-377-4595 | dwh20man@msn.com |
| Darrel Heen | Lake Tapps Const. Unltd | 253-863-6442 | darrel@laketappsconstruction.c |
| Nathan Holkraft | Tekvan Electrical | 206-948-9877 | nholkraft@tekvan.com |
| MICHAEL MILTIMORE | GENERAL MECHANICAL | 253-606-0687 | MMILTIMORE@GENERALMECHAN |
| JIM CASTINO | CASTINO ARCHITECTURAL | 253-851-7648 | JIMCASTINOC COMCAST.NET |
| Kris Salerno<br>Jeff Allen | Osborne Construction | 206-255-4365 | kris.salerno@osborne.cc |
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| Tom Frank | Westmark Const. Inc | 253-564-4620 | bids@westmarkconst.com |
| Mike Thompson<br>Tammy DeMarco | Goldbelt Operations Support Services | 253 205 0106 | Michael.thompson@gbo<br>TDeMarco@gbfss.com |
| Russ Borman | Centennial Contractors | 253 377-5508 | RBORMAN@CCE-INC.COM |
| David McCormack | Apple State Electric | 425-353-4547 | david.ase@frontier.com |

# STATE OF WASHINGTON MILITARY DEPARTMENT

ORAGE BLDG -KENT READINESS CENTER
ıte of Washington
itary Department

date: 3/1/17
location: 24410 Military Rd., Kent, WA 98032
10:00AM Pacific

| tendee | Representing | Phone(s) | email |
|---|---|---|---|
| David Jensen | D. Jensen In | 253-334-4005 | david jensen@comcast.Net |
| Bill Beisley | Beisley Inc | 360 275 5783 | bids@beisleyinc.com |
| Minh Vo | CFMO | 253.512.8463 | minh.vo@mil.wa.gov |
| | | | |
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Project Name: **Storage Building #511** **Project number: 2016-658**
Kent Readiness Center - WA

**STATE OF WASHINGTON**
**MILITARY DEPARTMENT**
**CONSTRUCTION & FACILITIES MANAGEMENT OFFICE**
**BUILDING #36 QUARTERMASTER ROAD**
**CAMP MURRAY, WASHINGTON, 98430-5052**

# B I D  P R O P O S A L

In compliance with the contract documents, the following bid proposal is submitted:

1. BASE BID: Fill out one bid item as described below (*Including Trench Excavation Safety Provisions)*

_____ $_____
**(Please print dollar amount in space abow)** **(Do not include Washington State Sales Tax)**

TRENCH EXCAVATION SAFETY PROVISIONS $ 0.00
(Included also in Base Bid)

**If the bid amount contains any work which requires trenching exceeding a depth of four feet, all costs for trench safety shall be included in the Base Bid and indicated above for adequate trench safety systems in compliance with Chapter 39.04 RCW. 49.17 RCW and WAC 296-155-650. Bidder must include a lump sum dollar amount in blank above (even if the value is $0.00) to be responsive.**

The Owner reserves the right to accept or reject any or all bid prices within sixty (60) days of the bid date.

Time for Completion

The undersigned hereby agrees to complete all the work under the Base Bid, **no later than August 31, 2017.** See LIQUIDATED DAMAGES.

The apprentice labor hours required for this project are 0 % of the total labor hours. The undersigned agrees to utilize this level of apprentice participation. Voluntary workforce diversity goals for this apprentice participation are identified in the Instructions to Bidders and Supplemental Conditions. Bidders may contact the Department of Labor & Industries, Apprenticeship Section, to obtain information on available aprenticeship programs.

Apprenticeship Requirements

Voluntary numerical MWBE goals of 10% MBE and 6% have been established for this project. Achievement of the goals is encouraged. Bidders may contact the Office of Minority and Womens Business Enterprise to obtain information on certified firms.

Liquidated Damages

The undersigned agrees to pay the Owner as liquidated damages the sum of $ **500.00 for each consecutive calendar day** that is in default after the Contract Time. Liquidated damages shall be deducted from the contract by change order.

Receipt of Addenda

Receipt of the following addenda is acknowledged:

Addendum No. _____ Addendum No. _____
Addendum No. _____ Addendum No. _____

Name of Firm _____
NOTE: *If bidder is a corporation, write State of Incorporation; if a partnership, give full names and addresses of all parties below.*

Signed by _____, Official Capacity _____

Print Name _____

Address _____

City _____ State _____ Zip Code _____

Date _____ Telephone _____ FAX _____

State of Washington Contractor's License No. _____

Federal Tax ID # _____ DUNS #: _____

# SECTION 09 26 00 - GYPSUM BOARD ASSEMBLIES

## PART 1 - GENERAL

### 1.7 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 1 Specification Sections, apply to this Section.

### 1.8 SUMMARY

A. This Section includes the following:
   1. Interior gypsum wallboard.

B. Related Sections include the following:
   1. Division 5 Section “Cold Formed Metal Framing”.

### 1.9 DEFINITIONS

A. Gypsum Board Terminology: Refer to ASTM C 11 for definitions of terms for gypsum board assemblies not defined in this Section or in other referenced standards.

### 1.10 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Manufacturer’s Data: Submit manufacturer’s specifications and installation instructions for each product required. Include reports and other data as may be required to show compliance with these specifications. Indicate by transmittal form that copy of each instruction has been distributed to the installer
   1. Manufacturer’s SPEC-DATA product sheet and certified test reports for fire retardant treatment.

C. Submit schedule of metal stud sizes based on manufacturer’s load table. Indicate stud size, thickness and location for each project condition.

### 1.11 QUALITY ASSURANCE

A. Fire-Test-Response Characteristics: For gypsum board assemblies with fire-resistance ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
   1. Fire-Resistance-Rated Assemblies: Indicated by design designations from UL's "Fire Resistance Directory." GA-600, "Fire Resistance Design Manual."

B. Sound Transmission Characteristics: For gypsum board assemblies with STC ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by a qualified independent testing agency.

1. STC-Rated Assemblies: Indicated by design designations from GA-600, "Fire Resistance Design Manual."

## 1.12 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.

B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Stack gypsum panels flat to prevent sagging.

## 1.13 PROJECT CONDITIONS

A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.

# PART 2 - PRODUCTS

## 2.7 MANUFACTURERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Gypsum Board and Related Products:
    a. American Gypsum Co.
    b. G-P Gypsum Corp.
    c. National Gypsum Company.
    d. United States Gypsum Co.
    e. Or approved substitute.

## 2.8 INTERIOR GYPSUM WALLBOARD

A. Panel Size: Provide in maximum lengths and widths available that will minimize joints in each area and correspond with support system indicated.

B. Gypsum Wallboard: ASTM C 36.

1. Type X:
    a. Thickness: 5/8 inch (15.9 mm), typical, unless specifically indicated otherwise on drawings.
    b. Long Edges: Tapered.

c. Location: For all locations where gypsum wall board is indicated on the drawings, except as noted below, for fire rated and non fire rated assemblies.

C. Water-Resistant Gypsum Backing Board: ASTM C 630/C 630M.

1. Type X:

a. Thickness: 5/8 inch (15.9 mm), typical, unless specifically indicated otherwise on drawings.

b. Long Edges: Tapered.

c. Location: For all Restrooms at non-tiled walls, Mechanical Room walls, walls in rooms subject to moisture, and where indicated on drawings.

D. Recycled Content: Provide gypsum wallboard materials containing a minimum of 30% recycled content (20% post-consumer, 40% post-industrial).

## 2.9 TILE BACKING PANELS:

A. Panel Size: Provide in maximum lengths and widths available that will minimize joints in each area and correspond with support system indicated.

B. Glass-Mat, Water-Resistant Backing Board: ASTM C 1178/C 1178M.

1. Product: Subject to compliance with requirements, provide "Dens-Shield Tile Backer" manufactured by G-P Gypsum Corp.

2. Core: 1/2 inch

3. Location: All walls behind ceramic tile installed under Division 9 Section “Ceramic Tile”.

## 2.10 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized steel sheet.

2. Shapes:

a. Cornerbead: Use at outside corners.

b. LC-Bead: J-shaped; exposed long flange receives joint compound; use at exposed panel edges.

c. Expansion (Control) Joint: Use where indicated or where required to meet industry standards for crack control, with Architect’s approval.

d. Curved-Edge Cornerbead: With notched or flexible flanges; use at curved openings.

## 2.11 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475.

B. Joint Tape:
   1. Interior Gypsum Wallboard: Paper.
   2. Tile Backing Panels: As recommended by panel manufacturer.

C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
   1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
   2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
      a. Use setting-type compound for installing paper-faced metal trim accessories.
   3. Fill Coat: For second coat, use setting-type, sandable topping compound.
   4. Finish Coat: For third coat, use setting-type, sandable topping compound.
   5. Skim Coat: For final coat of Level 5 finish, use setting-type, sandable topping compound.

D. Joint Compound for Tile Backing Panels: As recommended by manufacturer.

# PART 3 - EXECUTION

## 3.7 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

## 3.8 APPLYING AND FINISHING PANELS, GENERAL

A. Gypsum Board Application and Finishing Standards: ASTM C 840 and GA-216.

B. Install ceiling board panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in the central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.

C. Install gypsum panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.

D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on

opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.

E. Attach gypsum panels to steel studs so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

F. Attach gypsum panels to framing provided at openings and cutouts.

G. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members using resilient channels, or provide control joints to counteract wood shrinkage.

H. Form control and expansion joints with space between edges of adjoining gypsum panels.

I. Cover both faces of stud partition framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.

1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. (0.7 sq. m) in area.
2. Fit gypsum panels around ducts, pipes, and conduits.
3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by coffers, joists, and other structural members; allow 1/4- to 3/8-inch- (6.4- to 9.5-mm-) wide joints to install sealant.

J. Isolate perimeter of non-load-bearing gypsum board partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch- (6.4- to 12.7-mm-) wide spaces at these locations, and trim edges with U-bead edge trim where edges of gypsum panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.

K. Floating Construction: Where feasible, including where recommended in writing by manufacturer, install gypsum panels over wood framing, with floating internal corner construction.

L. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's written recommendations.

1. Space screws a maximum of 12 inches (304.8 mm) o.c. for vertical applications.

M. Space fasteners in panels that are tile substrates a maximum of 8 inches (203.2 mm) o.c.

## 3.9 PANEL APPLICATION METHODS

A. Single-Layer Application:

1. On ceilings, apply gypsum panels before wall/partition board application to the greatest extent possible and at right angles to framing, unless otherwise indicated.

2. On partitions/walls, apply gypsum panels vertically (parallel to framing) or horizontally (perpendicular to framing), unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
   a. Stagger abutting end joints not less than one framing member in alternate courses of board.
   b. At stairwells and other high walls, install panels horizontally, unless otherwise indicated or required by fire-resistance-rated assembly.

B. Multilayer Application on Ceilings: Apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints 1 framing member, 16 inches (400 mm) minimum, from parallel base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly.

C. Multilayer Application on Partitions/Walls: Apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.

D. Single-Layer Fastening Methods: Apply gypsum panels to supports with steel drill screws.

E. Multilayer Fastening Methods: Fasten base layers and face layers separately to supports with screws.

F. Tile Backing Panels:
1. Glass-Mat, Water-Resistant Backing Panel: Comply with manufacturer's written installation instructions and install at locations indicated to receive tile. Install with 1/4-inch (6.4-mm) gap where panels abut other construction or penetrations.
2. Areas Not Subject to Wetting: Install standard gypsum wallboard panels to produce a flat surface except at showers, tubs, and other locations indicated to receive water-resistant panels.
3. Where tile backing panels abut other types of panels in the same plane, shim surfaces to produce a uniform plane across panel surfaces.

## 3.10 INSTALLING TRIM ACCESSORIES

A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

B. Control Joints: Install control joints at locations indicated on Drawings, install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.

## 3.11 FINISHING GYPSUM BOARD ASSEMBLIES

A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.

B. Prefill open joints, rounded or beveled edges, and damaged surface areas.

C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.

D. Gypsum Board Finish Levels: Finish panels to levels indicated below, according to ASTM C 840, for locations indicated:

1. Level 1: Embed tape at joints in ceiling plenum areas, concealed areas, and where indicated, unless a higher level of finish is required for fire-resistance-rated assemblies and sound-rated assemblies.
2. Level 2: Embed tape and apply separate first coat of joint compound to tape, fasteners, and trim flanges where panels are substrate for tile and where indicated, and where panels are substrate for acoustical tile.
3. Level 4: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges at panel surfaces that will be exposed to view and have a textured finish, unless otherwise indicated.
4. Level 5: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges, and apply skim coat of joint compound over entire surface and all walls indicated to receive a smooth finish. **(Level 5 NOT APPLICABLE TO THIS PROJECT)**

E. Glass-Mat, Water-Resistant Backing Panels: Finish according to manufacturer's written instructions.

## 3.12 APPLYING TEXTURE FINISHES

A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.

B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture matching approved mockup and free of starved spots or other evidence of thin application or of application patterns.

C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions, texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture finish manufacturer's written recommendations.

D. Texture Schedule: Install the following textures on gypsum board walls and ceiling, unless otherwise indicated on drawings or schedules:

1. All New Walls and Ceilings, unless noted otherwise: Smooth, Level 5 finish.

2. Patch and repair work in existing rooms: Match existing adjacent surfaces, Level 4 finish (use Level 5 finish at smooth finished walls or ceilings). At walls with existing Sand Finished plaster, the intent is to use a matching finish with either Veneer Plaster or Gypsum Plaster, as specified in other sections.

## 3.13 FIELD QUALITY CONTROL

A. Above-Ceiling Observation: Before Contractor installs gypsum board ceilings, Architect will conduct an above-ceiling observation and report deficiencies in the Work observed. Do not proceed with installation of gypsum board to ceiling support framing until deficiencies have been corrected.

1. Notify Architect seven days in advance of date and time when Project, or part of Project, will be ready for above-ceiling observation.
2. Before notifying Architect, complete the following in areas to receive gypsum board ceilings:
   a. Installation of 80 percent of lighting fixtures, powered for operation.
   b. Installation, insulation, and leak and pressure testing of water piping systems.
   c. Installation of air-duct systems.
   d. Installation of air devices.
   e. Installation of mechanical system control-air tubing.
   f. Installation of ceiling support framing.

## 3.8 WASTE MANAGEMENT

A. Separate clean waste gypsum products from contaminants for recycling in accordance with the Waste Management Plan. Do not include wood, plastic, metal, asphalt-impregnated gypsum board, or any gypsum board coated with glass fiber, vinyl, decorative paper, paint or other finish. Place in designated area and protect from moisture and contamination.

1. Reuse scraps for gap filling where possible.
2. Sub-contractor shall work with supplier to take back waste for reuse or recycling.

END OF SECTION 09 26 00

# SECTION 095110 - ACOUSTICAL PANEL CEILINGS

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the general conditions, supplemental conditions, and general requirements and Division 1 Specification Sections, apply to this Section.

### 1.2 SUMMARY

A. This Section includes acoustical panels and exposed suspension systems for ceilings.

### 1.3 DEFINITIONS

A. AC: Articulation Class.

B. CAC: Ceiling Attenuation Class.

C. LR: Light Reflectance coefficient.

D. NRC: Noise Reduction Coefficient.

### 1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Coordinate Drawings: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items. Show the following:

1. Ceiling suspension members.
2. Method of attaching hangers to building structure.
    1. Furnish layouts for cast-in-place anchors, clips, and other ceiling attachment devices whose installation is specified in other Sections.
3. Ceiling-mounted items including lighting fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings.
4. Minimum Drawing Scale: 1/8 inch = 1 foot

C. Samples for Initial Selection: Not required for specified product.

D. Samples for Verification: Not required for specified product.

E. Qualification Data: For testing agency.

F. Field quality-control test reports.

G. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each acoustical panel ceiling.

H. Research/Evaluation Reports: For each acoustical panel ceiling and components.

I. Maintenance Data: For finishes to include in maintenance manuals.

J. Manufacturer's Data: Submit manufacturer's specifications and installation instructions for each product required. Include reports and other data as may be required to show compliance with these specifications. Indicate by transmittal form that copy of each instruction has been distributed to the installer.

## 1.5 QUALITY ASSURANCE

A. Acoustical Testing Agency Qualifications: An independent testing laboratory, or an NVLAP-accredited laboratory, with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548. NVLAP-accredited laboratories must document accreditation, based on a "Certificate of Accreditation" and a "Scope of Accreditation" listing the test methods specified.

B. Source Limitations:
   1. Acoustical Ceiling Panel: Obtain each type through one source from a single manufacturer.
   2. Suspension System: Obtain each type through one source from a single manufacturer.

C. Source Limitations: Obtain each type of acoustical ceiling panel and supporting suspension system through one source from a single manufacturer.

D. Fire-Test-Response Characteristics: Provide acoustical panel ceilings that comply with the following requirements:
   1. Fire-Resistance Characteristics: Where indicated, provide acoustical panel ceilings identical to those of assemblies tested for fire resistance per ASTM E 119 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.
      1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another testing and inspecting agency.
      2. Identify materials with appropriate markings of applicable testing and inspecting agency.
   2. Surface-Burning Characteristics: Provide acoustical panels with the following surface-burning characteristics complying with ASTM E 1264 for Class A materials as determined by testing identical products per ASTM E 84:
      1. Smoke-Developed Index: 450 or less.

E. Seismic Standard: Provide acoustical panel ceilings designed and installed to withstand the effects of earthquake motions according to the following:
   1. Standard for Ceiling Suspension Systems Requiring Seismic Restraint: Comply with ASTM E 580.

2. CISCA's Recommendations for Acoustical Ceilings: Comply with CISCA's "Recommendations for Direct-Hung Acoustical Tile and Lay-in Panel Ceilings--Seismic Zones 0-2."
3. CISCA's Guidelines for Systems Requiring Seismic Restraint: Comply with CISCA's "Guidelines for Seismic Restraint of Direct-Hung Suspended Ceiling Assemblies--Seismic Zones 3 & 4."
4. UBC Standard 25-2, "Metal Suspension Systems for Acoustical Tile and for Lay-in Panel Ceilings."

F. Preinstallation Conference: N/A

## 1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical panels, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.

B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.

C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

## 1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
1. Pressurized Plenums: Operate ventilation system for not less than 48 hours before beginning acoustical panel ceiling installation.

## 1.8 COORDINATION

A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

## 1.9 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Acoustical Ceiling Panels: Full-size panels equal to 2.0 percent of quantity installed.
2. Suspension System Components: Quantity of each exposed component equal to 2.0 percent of quantity installed.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified.
2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified or approved substitutions.

### 2.2 ACOUSTICAL CEILING PANELS

A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.

1. Mounting Method for Measuring NRC: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches (400 mm) away from test surface per ASTM E 795.

B. Recycled Content: Minimum 67%

C. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.

1. Where appearance characteristics of acoustical panels are indicated by referencing pattern designations in ASTM E 1264 and not manufacturers' proprietary product designations, provide products selected by Architect from each manufacturer's full range that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.

D. Panel-Based Antimicrobial Treatment: Provide acoustical panels treated with manufacturer's standard antimicrobial solution that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria.

E. Products:

1. Cortega Second Look II, 24” X 48” X ¾”, or approved substitution.
2. Other approved manufacturers:
    1. USG: Provide similar panel profile options.
    2. Approved substitution meeting requirements.

F. Classification: Provide non-rated panels complying with ASTM E 1264 for type, form, and pattern as follows:

G. Color: White

H. LR: Not less than .78.

I. NRC: Not less than .70.

J. CAC: Not less than 35.

K. Edge Detail: Angled tegular.

L. Size: 24 by 48 inches with 24”x 24” scoring.

## 2.3 METAL SUSPENSION SYSTEMS, GENERAL

A. Metal Suspension System Standard: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable requirements in ASTM C 635.

B. Finishes and Colors, General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturer's standard factory-applied finish for type of system indicated.

1. High-Humidity Finish: Comply with ASTM C 635 requirements for "Coating Classification for Severe Environment Performance" where high-humidity finishes are indicated.

C. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, "Direct Hung," unless otherwise indicated.

1. Anchors in Concrete: Anchors of type and material indicated below, with holes or loops for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to five times that imposed by ceiling construction, as determined by testing per ASTM E 488 or ASTM E 1512 as applicable, conducted by a qualified testing and inspecting agency.
    1. Type: Postinstalled expansion anchors.
    2. Corrosion Protection: Carbon-steel components zinc plated to comply with ASTM B 633, Class Fe/Zn 5 (0.005 mm) for Class SC 1 service condition.
2. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hangers of type indicated, and with capability to sustain, without failure, a load equal to 10 times that imposed by ceiling construction, as determined by testing per ASTM E 1190, conducted by a qualified testing and inspecting agency.

D. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:

1. Zinc-Coated Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
2. Size: Select wire diameter so its stress at three times hanger design load (ASTM C 635, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 0.106-inch- diameter wire.

E. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.

F. Angle Hangers: Angles with legs not less than 7/8 inch (22 mm) wide; formed with 0.04-inch- (1-mm-) thick, galvanized steel sheet complying with ASTM A 653/A 653M, G90 (Z275) coating designation; with bolted connections and 5/16-inch- (8-mm-) diameter bolts.

G. Seismic Struts: Manufacturer's standard compression struts designed to accommodate seismic forces.

H. Seismic Clips: Manufacturer's standard seismic clips designed and spaced to secure acoustical panels in-place.

## 2.4 METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILING

A. Products:
1. “DONN” Brand Suspension Systems Model “DX”, 15/16” exposed grid system as manufactured by USG Corporations or approved substitution:
2. Other Approved Manufacturer Systems:

1. Armstrong Ceiling Systems:
2. Approved substitutions meeting requirements.

B. Wide-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet, prepainted, electrolytically zinc coated, or hot-dip galvanized according to ASTM A 653/A 653M, not less than G30 (Z90) coating designation, with prefinished 15/16-inch- (24-mm-) wide metal caps on flanges.
1. Structural Classification: Intermediate duty system.
2. End Condition of Cross Runners: Override type.
3. Face Design: Flat, flush.
4. Cap Material: Steel cold-rolled sheet. Coated.
5. Recycled Steel Content: 25% minimum.
6. Finish / Color: Painted white to match panel.
7. At Welded and Woven Wire Panel Locations: Provide black finish.

## 2.5 METAL EDGE MOLDINGS AND TRIM

A. Products: Roll-Formed Sheet-Metal Edge Moldings and Trim: Manufacturer's standard moldings for edges and penetrations that fit acoustical panel edge details and suspension systems indicated; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension system runners.
1. For lay-in panels with reveal edge details, provide stepped edge molding that forms reveal of same depth and width as that formed between edge of panel and flange at exposed suspension member.
2. For circular penetrations of ceiling, provide edge moldings fabricated to diameter required to fit penetration exactly.
3. Baked-Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion

coating; Organic Coating: as specified below). Apply baked enamel complying with paint manufacturer's written instructions for cleaning, conversion coating, and painting.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

### 3.3 INSTALLATION, GENERAL

A. General: Install acoustical panel ceilings to comply with ASTM C 636 and UBC Standard 25-2 and seismic requirements indicated, per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."

B. Suspend ceiling hangers from building's structural members and as follows:

1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
3. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
4. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
5. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for

substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.

6. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
7. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
8. Do not attach hangers to steel deck tabs.
9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
10. Space hangers not more than 48 inches (1200 mm) o.c. along each member supported directly from hangers, unless otherwise indicated; provide hangers not more than 8 inches (200 mm) from ends of each member.

C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.

D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
2. Screw attach moldings to substrate at intervals not more than 16 inches (400 mm) o.c. and not more than 3 inches (75 mm) from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet (3.2 mm in 3.66 m). Miter corners accurately and connect securely.
3. Do not use exposed fasteners, including pop rivets, on moldings and trim.

E. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

F. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
1. Arrange directionally patterned acoustical panels as follows:
    1. As indicated on reflected ceiling plans.
2. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension system runners and moldings.
3. For reveal-edged panels on suspension system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
4. For reveal-edged panels on suspension system members with box-shaped flanges, install panels with reveal surfaces in firm contact with suspension system surfaces and panel faces flush with bottom face of runners.

5. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
6. Install hold-down clips in areas indicated, in areas required by authorities having jurisdiction, and for fire-resistance ratings; space as recommended by panel manufacturer's written instructions, unless otherwise indicated.

## 3.4 CLEANING

A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 095110

## LIGHTING FIXTURE SCHEDULE

| TYPE | MANUFACTURER | LAMPS | WATTS | MOUNTING |
|---|---|---|---|---|
| A1 | LUSIO<br>ES3V-A-2M-40-W-FR-LV-CRM-<br>10V-DIM20 | LED | 100 | PENDANT |
| A2 | PHILIPS - DAY BRITE<br>2EVG38L835-2-D-UNV-DIM-DAY | LED | 33 | RECESSED |
| A3 | PHILIPS - DAY BRITE<br>2EVG38L835-2-D-UNV-DIM | LED | 33 | RECESSED |
| A4 | OXYGEN<br>3-524-24 | LED | 20 | WALL |
| B1 | PHILIPS - LIGHTOLIER<br>S7R830K10 | LED | 15 | SURFACE |
| E1 | PHILIPS - DAY BRITE<br>WTM60WLU-MC3-PE | LED | 60 | WALL |
| E2 | PHILIPS - DAY BRITE<br>WTM40WLU-MCS-PE | LED | 40 | WALL |
| E2X | SAME AS TYPE E2 WITH<br>EMERGENCY BATTERY PACK | | | |
| X1 | PHILIPS - CHLORIDE<br>CCAXL3GW | INCLUDED | 3 | WALL |
| X2 | PHILIPS - CHLORIDE<br>CAX6 | INCLUDED | 3 | WALL |

## ELECTRICAL SYMBOLS LEGEND

CONDUIT CONCEALED. HASH MARKS INDICATE NUMBER OF #12 CONDUCTORS IN CODE SIZE CONDUIT. NO HASH MARKS INDICATES 2-#12 CONDUCTORS PLUS GROUND IN 3/4" CONDUIT, LONG HASH MARKS INDICATES NEUTRAL CONDUCTOR. INDICATES GROUND CONDUCTOR.

FLEXIBLE RACEWAY, PROVIDE GROUND CONDUCTORS PER NEC.

A-1,3 ADJACENT TO ARROW INDICATES HOMERUN OF CONDUCTORS IN CONDUIT FOR CIRCUITS 1 AND 3 TO PANEL "A".

EXIT LIGHT WITH BATTERY, UNIVERSAL MOUNTING.

LIGHT FIXTURE, PENDANT MOUNTED FROM CEILING.

LIGHT FIXTURE, RECESS MOUNTED.

DOWNLIGHT

WALL MOUNT LIGHT FIXTURE.

JUNCTION BOX.

A1 — LIGHT FIXTURE TYPE. A1 = SPECIFIC LIGHTING FIXTURE REFERENCED ON LIGHTING FIXTURE SCHEDULE.

PC — PHOTOCELL, MOUNT ON ROOF FACING NORTH.

POWER PANEL

DUPLEX RECEPTACLE 20A, 125 VOLT WALL MOUNTED AT 18 INCHES AFF. G = GROUND FAULT INTERRUPTING, T = TAMPERPROOF.

SPECIAL RECEPTACLE. AMPERAGE AND VOLTAGE AS SHOWN.

FOURPLEX RECEPTACLE 20A, 125 VOLT, WALL MOUNTED AT 18 INCHES AFF.

FLUSH MOUNTED DUAL TELEPHONE/DATA OUTLET, MOUNT AT 18" AFF. PROVIDE 4-11/16" SQUARE BOX WITH 3/4" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING SPACE. COMMUNICATIONS BACKBOARD IN STORAGE BAY 105. SEE SHEET E3.0 FOR LOCATION OF COMMUNICATIONS BACKBOARD.

DUPLEX RECEPTACLE 20A, 125 VOLT WALL MOUNTED HORIZONTALLY 2" ABOVE COUNTERTOP BACKSPLASH TO THE BOTTOM OF THE RECEPTACLE COVERPLATE.

JUNCTION BOX.

EMERGENCY FLOODLIGHT WITH BATTERY.

EQUIPMENT CONNECTION. PROVIDE PER NEC AND MANUFACTURERS REQUIREMENTS AND/OR RECOMMENDATIONS.

S — LIGHT SWITCH TOGGLE TYPE, SINGLE POLE, SUBSCRIPTS; 3 = THREE WAY, 4 = FOUR WAY, D = DIMMER CONTROL, K = KEY OPERATED, P = PILOT LIGHT, a, b, c, ETC = NUMBER OF SWITCHES AT THE LOCATION AND SPECIFIC FIXTURES CONTROLLED. MOUNT AT 42 INCHES AFF.

DISCONNECT SWITCH

FUSED DISCONNECT SWITCH WITH FUSES.

T — TRANSFORMER. SIZE AND TYPE AS NOTED. PROVIDE GROUNDING AS REQUIRED BY NEC.

GROUND PER NEC

(E) — EXISTING

WP — WEATHERPROOF

BID SET

# STORAGE BUILDING
KENT READINESS CENTER
KENT, WASHINGTON

REVISIONS:
1 ADDENDUM #2 2-22-17



STEVEN L. HUBBS
STATE OF WASHINGTON
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2/22/17

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Architecture
**James Castino**
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DATE: FEB. 14, 2017
DRAWN BY: JAE
PROJECT NO.:
FILE NAME:

LEGEND/ LIGHT FIXTURE SCHEDULE

SHEET NO:
E1.0



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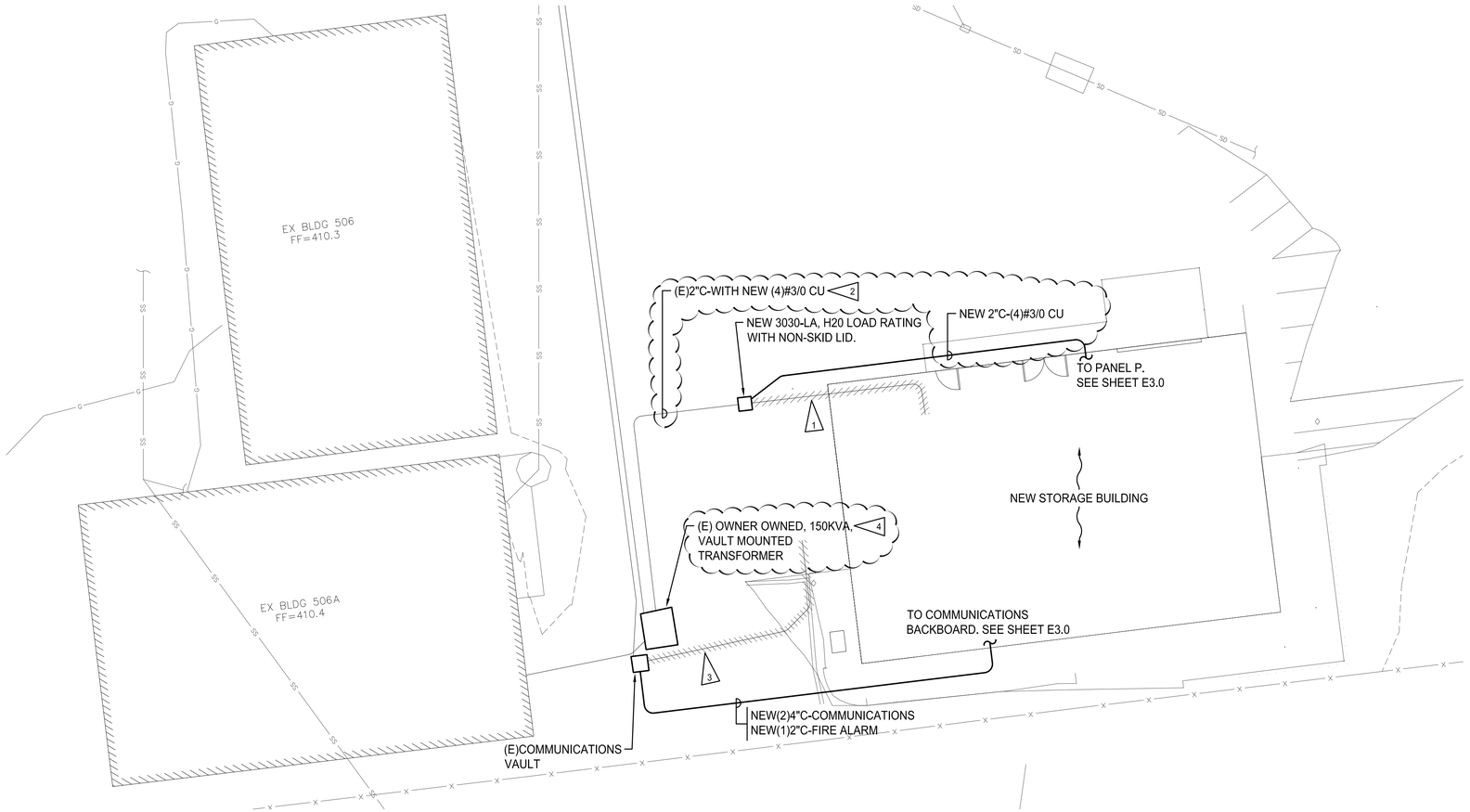


## ELECTRICAL SITE PLAN

SCALE: 1"=10'-0"

N

GRAPHIC SCALE

1"=10'-0"

10 0 10 20

scale feet

## GENERAL NOTES:

1. ELECTRICAL REQUIREMENTS ARE NOT LIMITED TO ELECTRICAL DRAWINGS AND SPECIFICATIONS. THERE IS ADDITIONAL ELECTRICAL WORK REQUIRED TO BE INCLUDED IN THE BID, INDICATED ON ARCHITECTURAL AND CIVIL DRAWINGS. ADDITIONAL ELECTRICAL WORK REQUIRED IN THE BID IS ALSO LOCATED IN THE SPECIFICATIONS. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL AND CIVIL SPECIFICATIONS FOR ADDITIONAL ELECTRICAL INFORMATION AND INCLUDE COSTS FOR THIS WORK IN THE BID.
2. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-(800)-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR MAINTAINING ALL LOCATE MARKS ONCE THE UTILITIES HAVE BEEN LOCATED.
3. ALL WALL PENETRATIONS SHALL BE NEATLY CORE-DRILLED, CAULKED AND SEALED TO MAINTAIN FIRE, AND WATERPROOF RATING. PATCH, REPAIR, AND PAINT TO MATCH EXISTING.

## ELECTRICAL NOTES:

1. EXISTING 2"C-(4)#2 CU TO EXISTING BUILDING PANEL. CONTRACTOR SHALL REMOVE EXISTING CONDUCTORS BACK TO EXISTING 150KVA, VAULT MOUNTED TRANSFORMER. REMOVE ABOVE GRADE CONDUIT TO 6" BELOW GRADE AND ABANDON.
2. CONTRACTOR SHALL INTERCEPT EXISTING 2" CONDUIT AND EXTEND INTO NEW VAULT.
3. EXISTING (2)4"C AND (1)2"C TO EXISTING BUILDING COMMUNICATIONS BACKBOARD. CONTRACTOR SHALL REMOVE EXISTING COMMUNICATIONS CONDUCTORS BACK TO EXISTING COMMUNICATIONS VAULT. COORDINATE DISCONNECT IN EXISTING BUILDING WITH OWNER PRIOR TO REMOVAL. REMOVE ABOVE GRADE CONDUIT TO 6" BELOW GRADE AND ABANDON.
4. CONTRACTOR SHALL PROVIDE HIGH-VOLTAGE CERTIFIED ELECTRICIAN TO DE-ENERGIZE EXISTING TRANSFORMER FOR REMOVAL OF EXISTING ELECTRICAL CONDUCTORS AND INSTALLATION OF NEW ELECTRICAL CONDUCTORS.

BID SET

IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED SET

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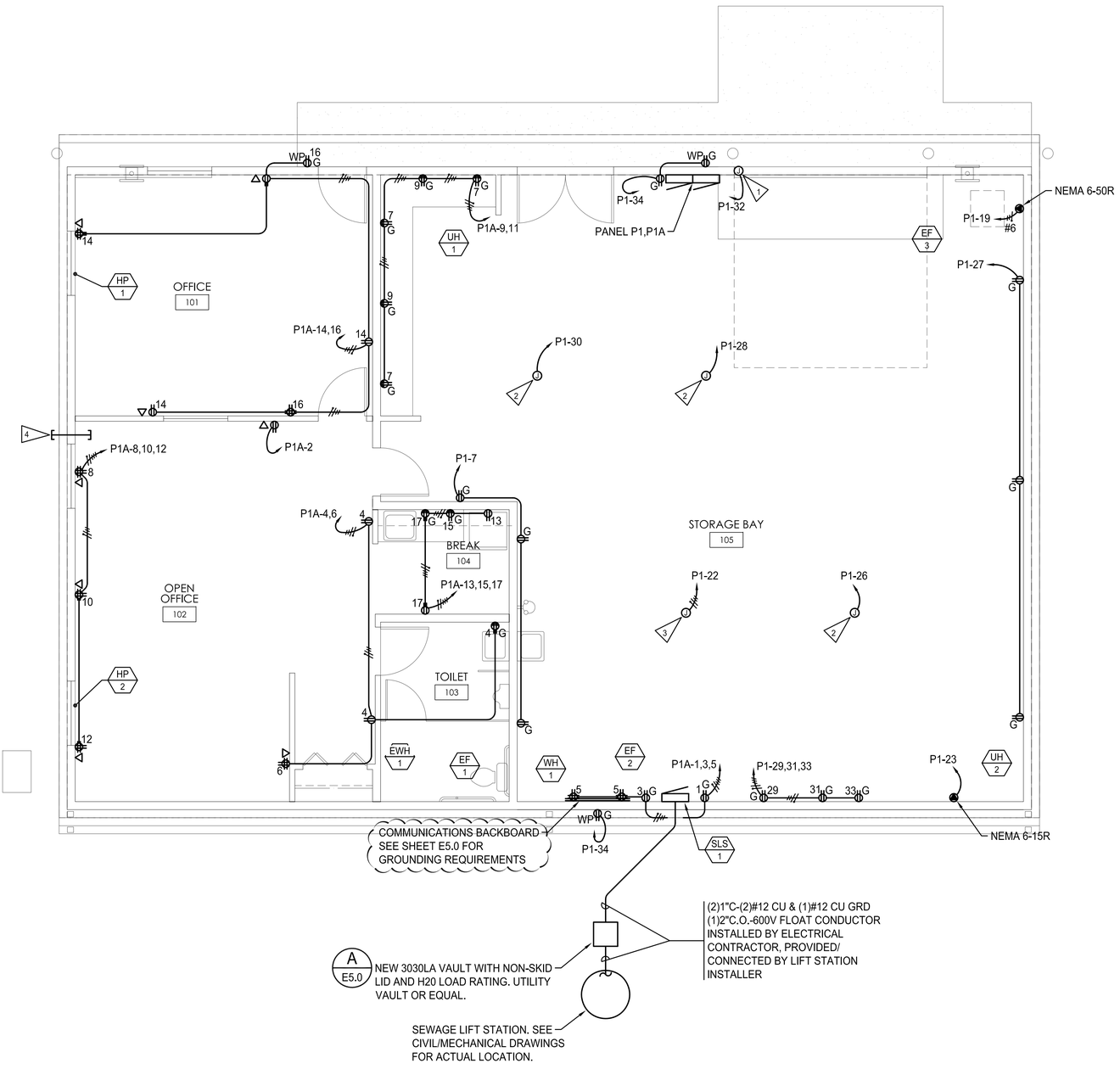
DATE: FEB. 14, 2017
DRAWN BY: JAE
PROJECT NO.:
FILE NAME:

ELECTRICAL SITE PLAN

SHEET NO:
E1.1




## POWER/SIGNAL FLOOR PLAN

SCALE: 1/4"=1'-0"

N

1/4"=1'-0"

GRAPHIC SCALE

4 0 4 8

scale feet

## GENERAL NOTES:

1. ELECTRICAL REQUIREMENTS ARE NOT LIMITED TO ELECTRICAL DRAWINGS AND SPECIFICATIONS. THERE IS ADDITIONAL ELECTRICAL WORK REQUIRED TO BE INCLUDED IN THE BID, INDICATED ON ARCHITECTURAL AND CIVIL DRAWINGS. ADDITIONAL ELECTRICAL WORK REQUIRED IN THE BID IS ALSO LOCATED IN THE SPECIFICATIONS. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL AND CIVIL SPECIFICATIONS FOR ADDITIONAL ELECTRICAL INFORMATION AND INCLUDE COSTS FOR THIS WORK IN THE BID.
2. CONTRACTOR SHALL CONCEAL CONDUIT WHEREVER POSSIBLE. CONTRACTOR SHALL SUBMIT TO ARCHITECT FOR REVIEW AND APPROVAL, ALL ROUTINGS OF ANY EXPOSED CONDUIT PRIOR TO ROUGH-IN. NO EXPOSED CONDUIT SHALL BE INSTALLED UNTIL APPROVAL IS PROVIDED IN WRITING FROM THE ARCHITECT. ALL EXPOSED CONDUIT SHALL BE ROUTED IN A NEAT AND WORKMANSHIP LIKE MANNER.
3. ALL WALL PENETRATIONS SHALL BE NEATLY CORE-DRILLED, CAULKED AND SEALED TO MAINTAIN FIRE, AND WATERPROOF RATING. PATCH, REPAIR, AND PAINT TO MATCH EXISTING.

## ELECTRICAL NOTES:

1. ROLL-UP DOOR MOTOR. CONTRACTOR SHALL PROVIDE CONDUIT, WIRE AND CONNECT TO ALL CONTROL BUTTONS, KEYED SWITCHES, LIMIT SWITCHES, ETC. FURNISHED WITH ROLL-UP DOOR. CONTRACTOR SHALL VERIFY EQUIPMENT VOLTAGE AND PHASE WITH SHOP DRAWINGS PRIOR TO ROUGH-IN.
2. CONTRACTOR SHALL PROVIDE 50'-0" CORD REEL MOUNTED FROM STRUCTURE WITH 125V, NEMA L5-20R, LOCKING TYPE RECEPTACLE. HUBBEL OR EQUAL.
3. CONTRACTOR SHALL PROVIDE 50'-0" CORD REEL MOUNTED FROM STRUCTURE WITH 250V, NEMA L6-20R, LOCKING TYPE RECEPTACLE. HUBBEL OR EQUAL.
4. CONTRACTOR SHALL PROVIDE (1)5'-0" SECTION OF 2" RIGID GALVANIZED STEEL CONDUIT THROUGH WALL +2'-0" ABOVE WINDOW HEIGHT FOR FUTURE ANTENNAE CABLE ROUTING BY OWNER. PROVIDE THREADED CAP ON EACH END OF CONDUIT AND SEAL WALL PENETRATION. COORDINATE EXACT LOCATION OF CONDUIT PENETRATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.

IF SHEET IS LESS THAN 22" x 34" IT IS A REDUCED SET

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DATE: FEB. 14, 2017
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FILE NAME:

POWER/SIGNAL FLOOR PLAN

SHEET NO:
E3.0

BID SET

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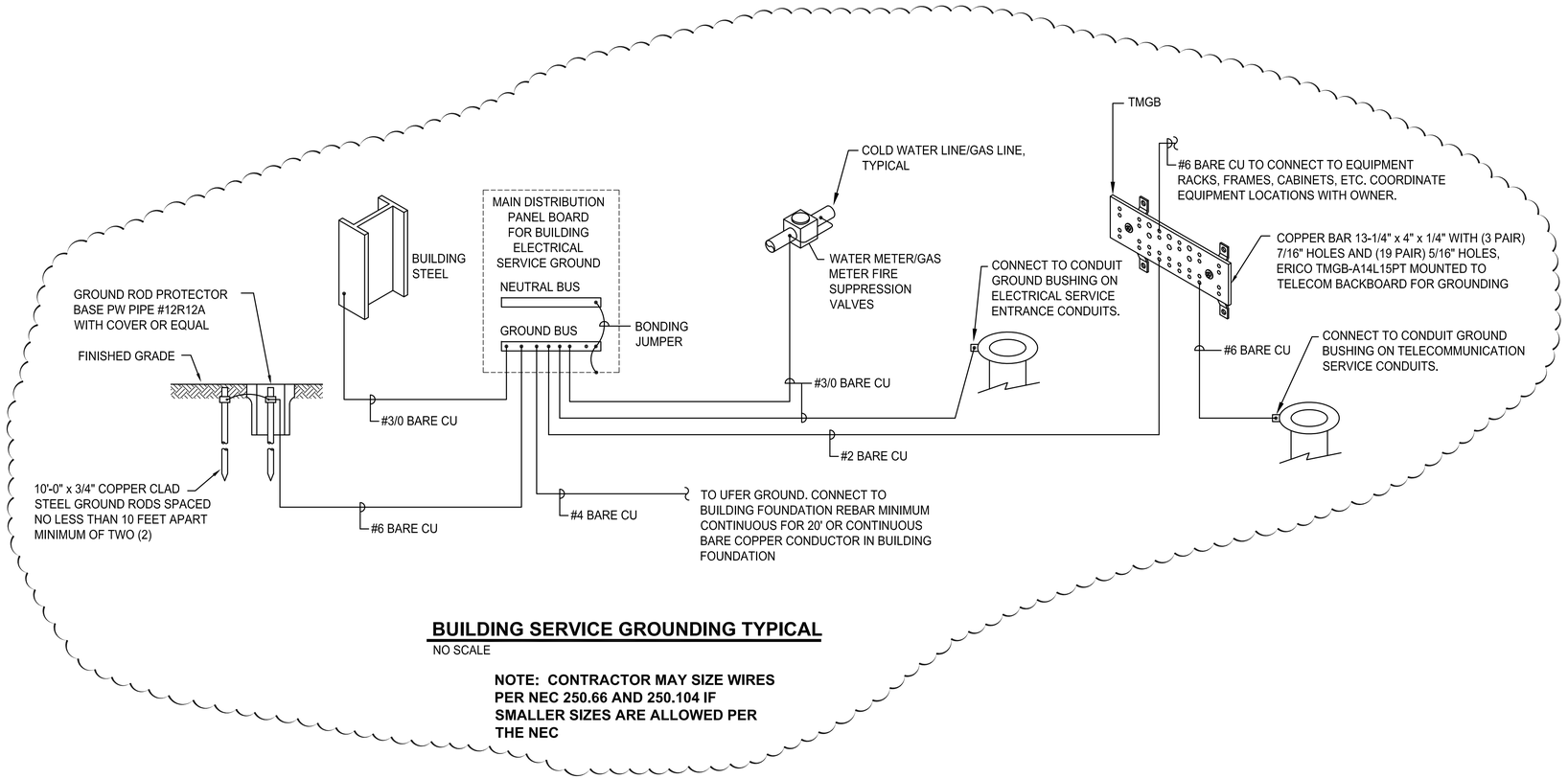
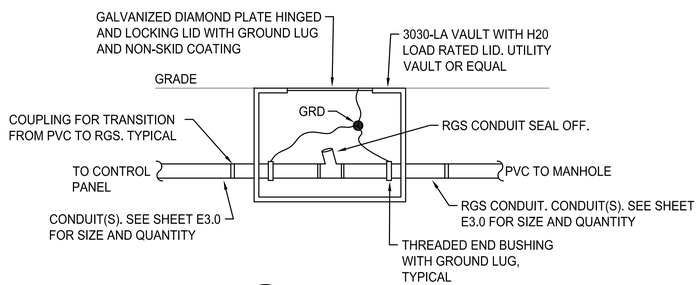



## BUILDING SERVICE GROUNDING TYPICAL

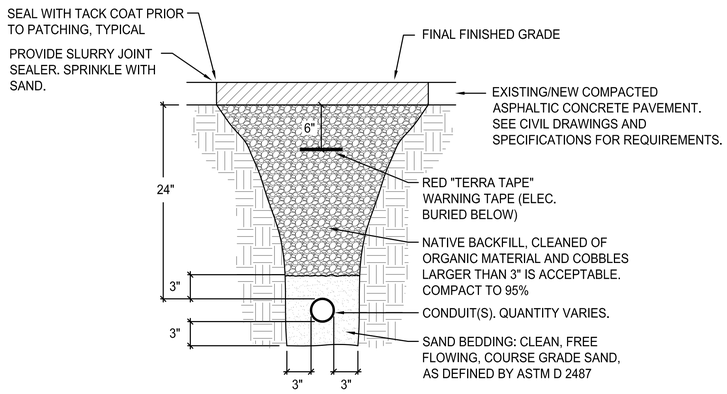
NO SCALE

**NOTE: CONTRACTOR MAY SIZE WIRES PER NEC 250.66 AND 250.104 IF SMALLER SIZES ARE ALLOWED PER THE NEC**




A E5.0 **VAULT DETAIL**

NOT TO SCALE




B E5.0 **CONDUIT TRENCHING**

NOT TO SCALE

# STORAGE BUILDING
## KENT READINESS CENTER
## KENT, WASHINGTON

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ELECTRICAL DETAILS

SHEET NO:
E5.0

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